

CLAIMS

1. A radio base station apparatus comprising:
reception weight setting means for setting a
plurality of reception weights;
5 adaptive array antenna receiving means for
performing adaptive array antenna reception of signals
from said plurality of communication terminals in
directional patterns formed with said reception weights;
and
10 path search means for combining power addition
values for each directional pattern received by an
adaptive array antenna and creating a delay profile,
performing finger assignment using this delay profile,
and outputting despreading timing used in weight control
15 for adaptive array antenna reception.

2. A radio base station apparatus comprising:
reception weight calculating means for grouping a
plurality of communication terminals and finding a
reception weight for each group;
20 adaptive array antenna receiving means for
performing adaptive array antenna reception of signals
from said plurality of communication terminals in
directional patterns formed with said reception weights;
and
25 path search means for combining power addition
values for each directional pattern received by an
adaptive array antenna and creating a delay profile,
performing finger assignment using this delay profile,

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and outputting despreading timing used in weight control for adaptive array antenna reception.

3. A radio base station apparatus comprising:

a plurality of diversity antennas;

5 reception weight calculating means for grouping a plurality of communication terminals and finding a reception weight for each group;

adaptive array antenna receiving means for performing adaptive array antenna reception respectively 10 with said diversity antennas of signals from said plurality of communication terminals in directional patterns formed with said reception weights; and path search means for combining power addition values for each directional pattern received by an 15 adaptive array antenna and creating a delay profile, performing finger assignment using this delay profile, and outputting despreading timing used in weight control for adaptive array antenna reception.

4. The radio base station apparatus according to 20 claim 1, further comprising threshold value decision means for making a threshold value decision with respect to a power addition value, wherein said path search means finds a power combination value from output after said threshold value decision.

25 5. The radio base station apparatus according to claim 1, wherein said path search means performs finger assignment using a signal received by an adaptive array antenna with a reception weight for each group found with

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said despreading timing.

6. A communication terminal apparatus that performs radio communication with a radio base station apparatus, said radio base station apparatus comprising:

5 reception weight setting means for setting a plurality of reception weights;

adaptive array antenna receiving means for performing adaptive array antenna reception of signals from said plurality of communication terminals in directional patterns formed with said reception weights;

10 directional patterns formed with said reception weights;
and

path search means for combining power addition values for each directional pattern received by an adaptive array antenna and creating a delay profile, performing finger assignment using this delay profile and outputting despreading timing used in weight control for adaptive array antenna reception.

7. A radio communication method comprising:

a reception weight calculating step of grouping a plurality of communication terminals and finding a reception weight for each group;

an adaptive array antenna receiving step of performing adaptive array antenna reception of signals from said plurality of communication terminals in directional patterns formed with said reception weights; and

a path search step of combining power addition values for each directional pattern received by an adaptive array

antenna and creating a delay profile, performing finger assignment using this delay profile, and outputting despreading timing used in weight control for adaptive array antenna reception.

- 5 8. A radio communication method comprising:
 - a reception weight calculating step of grouping a plurality of communication terminals and finding a reception weight for each group;
 - an adaptive array antenna receiving step of
- 10 performing adaptive array antenna reception of signals from said plurality of communication terminals in directional patterns formed with said reception weights;
- 15 a path search step of combining, after completion of threshold value decisions, power addition values for each group received by an adaptive array antenna and creating a delay profile, performing finger assignment using this delay profile, and outputting despreading timing used in weight control for adaptive array antenna reception; and
- 20 a finger assigning step of performing finger assignment using a signal received by an adaptive array antenna.

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